DEPARTMENT OF THE ARMY UNITED STATES ARMY GARRISON VICENZA UNIT 31401, BOX 41 APO AE 09630

0 5 NOV 2008

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: US Army Garrison (USAG) Vicenza Policy Memorandum 08-36, Vicenza Community Energy/Water Conservation Policy

- 1. PURPOSE. One of the key elements in a sound energy management program is individual awareness. This policy prescribes operational guidelines and establishes an energy conservation program for the Vicenza community and establishes the Energy Conservation Board (ECB) and Building Energy Monitors (BEM).
- 2. APPLICABILITY. This policy memorandum applies to all USASETAF units and all other units/detachments/elements stationed on Caserma Ederle and residents of government controlled quarters in the Vicenza area and supersedes U.S. Army Garrison Vicenza Policy Memorandum 06-47, Energy Saving dated 6 July 2006.

3. REFERENCES:

- a. Executive Order 13423 (January 24, 2007) The purpose of the Executive Order (EO) is to engage the federal government in an effective energy management program. EO 13423 encourages government agencies to promote energy efficiency, water conservation, and the use of renewable energy products.
 - b. Specific goals outlined in the EO:
- (1) Improve energy efficiency and reduce greenhouse gas emissions of the agency, through reduction of energy intensity by 3 percent annually through the end of fiscal year 2015, or 30 percent by the end of fiscal year 2015, relative to the baseline of the agency's energy use in fiscal year 2003.
- (2) Beginning in FY 2008, reduce water consumption intensity, relative to the baseline of the agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015.
- c. Army Regulations and Policies; Regulation AR-420-1 is the document that addresses the policies, procedures and responsibilities for the Army Energy Program (AEP). The AEP objectives as stated in AR-420-1 are to:
 - (1) Participate in the national effort to conserve energy and water resources.

SUBJECT: US Army Garrison (USAG) Vicenza Policy Memorandum 08-36, Vicenza Community Energy/Water Conservation Policy

- (2) Implementing the Army Energy Strategy for installations by:
- (a) Eliminating/reducing energy waste in existing facilities.
- (b) Increasing energy efficiency in new/renovated construction.
- (c) Reducing dependence on fossil fuels.
- (d) Conserving water resources.
- (e) Improving energy security.

4. RESPONSIBILITIES.

- a. Garrison Commander, United States Army Garrison, Vicenza.
 - (1) Provide policy guidance and direction.
 - (2) Enforce all provisions of AR 420-1.
- (3) Ensure Commanding Officers, Directors, and Tenants will ensure compliance and issue amplifying instructions as appropriate.
 - b. Deputy Garrison Commander, USAG Vicenza.
- (1) Chair the Energy Conservation Board (ECB) and ensure meetings are held at a minimum semi annually.
 - (2) Provide DPW with approval to begin comfort air-conditioning.
 - c. Unit Commanders, Directorate Chiefs, Tenant Commands.

Appoint a Unit Energy Conservation Officer (UECO) for energy and water conservation matters for the unit/directorate/tenants.

- d. Energy Conservation Board.
- (1) Purpose and Duties: The ECB is responsible for planning and pursuing a progressive energy conservation program. The ECB will ensure that targets are established and utilized in the implementation of conservation survey recommendations.

SUBJECT: US Army Garrison (USAG) Vicenza Policy Memorandum 08-36, Vicenza Community Energy/Water Conservation Policy

The ECB will prepare energy conservation instructions, notices, posters, bulletins, etc., as required by prevailing conditions and assist when possible with energy awareness week activities.

- (2) Membership: Membership of the ECB shall consist of the Deputy Garrison Commander (chairman) and all others as noted within Encl A.
- (3) Meetings: The ECB will meet semi-annually or as required. Minutes of the meetings and recommendations will be provided to the Garrison Commander for review.
 - e. Director, DPW.
- (1) Issue warning letters to those housing occupants and tenant activities that have violated the warning provisions of Encl B twice.
- (2) Designate an Energy Manager in writing and ensure the person is trained to represent the garrison in all energy and water matters.
 - (3) Meet or exceed energy and water conservation goals.
- f. O&M Chief. Designated as the Utilities Conservation Officer. Report violations of the provisions of Encl B to the Housing Office.
- (1) The Utilities Conservation Officer, or representative, will conduct random energy conservation inspections using the forms contained in Encl B. Building/area supervisors and OIC's will receive copies of these inspections.
 - (2) Unit Commanders, Division Chiefs will be notified of repeat violations.
 - g. Environmental Chief. Designated as the energy awareness manager.
 - (1) Provides training to energy building monitors.
 - (2) Conducts energy awareness week activities.
 - (3) Manages an on-going energy and water awareness program.
 - h. Family Housing Manager.
- (1) Ensure that extracts of this Directive are provided to each sponsor and/or family residing in government quarters.

SUBJECT: US Army Garrison (USAG) Vicenza Policy Memorandum 08-36, Vicenza Community Energy/Water Conservation Policy

- (2) Ensure that watering of lawns and washing of privately owned vehicles (POVs) are in compliance with times set forth in Encl D.
- (3) Ensure that tenants maximize water conservation by watering in such a manner as to prevent run-off on sidewalks and gutters.
 - (4) Issue family housing citations to those occupants who violate this Directive.
 - (5) Notify the Director, DPW, of occupants who violate this Directive more than once.
- i. Provost Marshal's Office. In the conduct of routine patrols, report violations of this Directive to the Family Housing Manager or DPW as appropriate.
 - j. Commanders/OICs/Division Chiefs.
 - (1) Ensure the widest dissemination of the contents of this Directive.
 - (2) Enforce the provisions of Encls B, and D.
 - k. Unit Energy Conservation Officer (UECO).
- (1) Serves as the single POC for energy and water conservation matters for the unit/directorate/tenant.
- (2) Designate a BEM for each facility/portion of facility the unit/directorate/tenant occupies. Submit appointment letters (Encl C) for each to DPW Energy Manager.
 - (3) Spot check energy and water conservation efforts of the unit/directorate/tenant.
 - (4) Ensure that Unit is complying with applicable energy policies.
- (5) Ensure all operations involving energy and water use are reviewed and all reasonable conservation measures that do not affect operations are taken.
- l. Building Energy Monitors (BEM). A Building Energy Monitor is an individual who is responsible for achieving the goals of the Energy Program within their designated building(s). Through these individuals, the ECB can realistically reach all employees and establish a well rooted energy conservation program. A Building Energy Monitor Program is designed to task individuals throughout the activity to be the energy conservation communicators, leaders, and motivators of fellow employees within their buildings. The BEM Program is a vehicle through

SUBJECT: US Army Garrison (USAG) Vicenza Policy Memorandum 08-36, Vicenza Community Energy/Water Conservation Policy

which to reach all personnel, provide high-level visibility and direction, and to gain and maintain BEM Program momentum at the garrison. Building/area energy monitors will:

- (1) Ensure that all building/area occupants are instructed in the conservation of energy.
- (2) Conduct inspections and continually monitor their assigned building/area to ensure compliance with the applicable portions of the Energy Conservation Inspection Checklist enclosure.
- (3) Inspections will be conducted at least monthly during duty hours or, when applicable, after duty hours. Inspection forms will be retained for 12 months. In addition, daily surveys of assigned building/area will be conducted to observe and correct any obvious energy conservation deficiencies.
- (4) Notify individuals within their building/area of energy conservation violations and ensure that corrective action is taken.
- 5. POC for this policy is Mr. Thomas Blackmer, Chief Environmental Division, DPW, DSN 634-8941, Thomas.blackmer@eur.army.mil.

5 Encls

- Composition of the USAG
 Vicenza Energy Conservation
 Board (ECB)
- 2. Reports and Check lists
- 3. Building Monitor appointment Letter
- 4. Water and Energy Conservation Plan
- 5. Record of Revision

ERIK O. DAIGA COL, MI

Commanding

Energy Conservation Board (ECB) Designated Members

1. The Garrison ECB shall consist of representatives from the following Commands/Divisions:

Deputy Garrison Commander (Chairperson)

Chief O&M Division (Co-Chair)

Energy Manager (advisor)

Chief Environmental Division

Maintenance Branch Member

Engineering Branch Member

Family Housing Officer Member

Fleet Transportation Member

DRM Member

PAO Member

2. Directors/Commanding officers or designated representatives from the following units/departments shall be available as on-call task force members of the ECB:

MWR Director

AAFES Director

DECA Director

DoDDS Representative

SETAF Member

Building Energy Monitor (BEM) CHECKLIST

Installation:	Bldg No.	Flr/Location	
Unit/Activity			
(Within	Building)		

ITEM	CHECK POINT DESCRIPTION	YES	NO	CORRECTIVE ACTION
1	Are weekly inspections being completed, including the corrective action taken and the checklist on file for one year?			
2	Are exterior lights off during daytime hours?			
3	Are lights off in areas unoccupied for more than 5 minutes?			
4	Are A/C thermostats set to 74 degrees?		0	
5	Is air conditioning turned off in unoccupied workspaces?			
6	Are doors and windows for air conditioned areas closed?			
7	Are exhaust fans run only when required?			
8	Are restroom fans and lights secured when unoccupied and at the close of business?			
9	Are there any leaking faucets?			
10	Are there any leaking toilet/urinals?			
11	Is watering done outside the hours of 0900 to 1700?			
12	Is watering limited to 15 minutes per area?			
13	Is there excess spillage of water from lawn irrigation?			
14	Are personnel advised in and practicing the use of full loads for laundry?			

15	Are items consolidated to minimize number of	
	refrigerators?	
16	Are unused equipment turned off or in sleep mode	
	during work hours?	
17	Is office equipment secured at the close of	
	business?	
18	Are there any leaking compressed air lines?	
19	Are all new or replaced equipment such as	
	refrigerators and window unit AC's Energy Star	
	Compliant?	
Jnit/A	activity POC	Phone Email
nenac	ted by	Date
TONCO	icu by	Date

Building Energy Monitor (BEM) CHECKLIST Heating Season Bldg No. Flr/Location

Installa Unit/Ac)	FIF/LO	ocation
UIIIUAC	(Within Building)			
	(**************************************			
ITEM	CHECK POINT DESCRIPTION	YES	NO	CORRECTIVE ACTION
1	Are authorized temperature limits for both day and night posted in building?			
2	Are thermostats set at 68 degrees?			
3	Are heating units for clubs, theaters, exchanges, and similar community-type activities used only during occupied hours? Are temperatures set back during non-occupied hours?			
4	Are all large doors closed during the heating season?			
5	Are windows closed during the heating season?			
6	Are heating registers closed off in rooms not being used?			
7	Is outdoor lighting turned off during daylight hours and non-use nighttime?			
8	Are lights kept off in unoccupied areas?			
9	Are thermostats set at 55 degrees during non-working hours during heating months?			
10	Are portable heaters in use without authorization?			
11	Are all unnecessary exterior lights off?			
12	Have requests for repairs that are beyond the capability of self-help been made?			
Unit/Ac	tivity POC		Phone	Email
Inspecte	ed by			Date

Building Energy Monitor (BEM) CHECKLIST Cooling Season

Installa	tion: Bldg No		Flr/L	ocation
Unit/Ac	etivity	W-1-331		
	(Within Building)			
ITEM	CHECK POINT	YES	NO	CORRECTIVE ACTION
	DESCRIPTION			
1	Are authorized temperature			
	limits for both day and night			
	posted in building?			
2	Are cooling systems for			
	clubs, theaters, exchanges,			
	and similar community-type			
	activities limited to hours of			
2	occupancy? Are all large doors closed			
3	during cooling of the			
	building?			
4	Are windows closed when air			
	conditioners are running?			
5	Are some windows slightly			
	opened to assist evaporative			
	cooling?			
6	Are cooling registers closed			
77	off in rooms not being used? Are all unnecessary exterior			NACTOR NACE AND ADDRESS OF THE PARTY OF THE
7	lights off?			
8	Are lights kept off in			
Ü	unoccupied areas?			
9	Are thermostats set at 85			
	degrees during non-working			
	hours during cooling			
	months?			
10	Are air conditioners and			
	cooling systems operating			
1.1	only after 0900?			
11	Are cooling systems being shut off one-half hour before			
	close of business?			
12	Have requests for repairs			
12	been made that are beyond			
	the capability of self help?			
0945.0 55 EXTERN		direction of the second		
Unit/Ac	tivity POC		Phone	Email
Inspecte	11			Data
inspecte	ea by			Date

Energy Conservation Violation Notice

Building Number:
Person Responsible:
Organization (If applicable):
1. Reference Energy Conservation Policy.
2. The following energy conservation violation(s) was (were) noted at (time), on (date)
VIOLATIONS:
A copy of this notice will be routed through command channels if this is the third notice.
Energy Conservation Inspector

Example Appointment Letter for Building Energy Monitor

OFFICE SYMBOL (Your Unit)

DATE

MEMORANDUM FOR USAG Vicenza, Directorate of Public Works, Unit 31401, Box 15 APO AE 09630

SUBJECT: Building Energy Monitor (BEM)

- 1. Effective immediately the listed personnel are appointed as the Building Energy Monitor (BEM) for (your unit).
 - a. Primary BEM: Lname, Fname, tele number, e-mail
 - b. Unit Energy Conservation Office: Lname, Fname, tele number, e-mail
- 2. Authority:
 - a. AR 420-1, Feb 2008
 - b. US Army Energy and Water Campaign Plan, Dec 2007
- 3. Purpose: The BEM serves as the liaison between their building of assignment and the Unit Energy Conservation Officer. He coordinates all energy issues such as conducting energy audits, promoting energy conservation practices to occupants in their AOR, and initiate and follow up on corrective actions to the facility service request desk.
- 4. Period: Effective immediately until officially relieved or released from this appointment.
- 5. POC for this action is the undersigned, DSN: XXX-XXXX, e-mail xxx.xxxx@zzz.zzz.

ERIK O. DAIGA COL, MI Commanding

DISTRIBUTION:

- 1 DPW, Utilities
- 1 Unit Commander
- 1 Personnel Files
- 1 Individual Concerned

Water and Energy Conservation Plan

1. POLICY.

- a. General: Providing adequate utility services at this activity is becoming more difficult due to the limited availability of funds, resources and personnel; compounded by continually soaring utility rates and a growing base population. The establishment of an aggressive, effective energy conservation program to prevent waste cannot be over emphasized. Our objective is to conserve energy while maintaining operational readiness. The policy of "no growth" above FY 2001 energy consumption levels has been established as the Army's energy conservation goal. Reference (a) requires a 35 percent reduction in energy consumption of existing federal buildings by 2010, based on FY 2001 consumption levels.
- b. Water: Water is a valuable commodity in Italy. Here at USAG Vicenza we are fortunate to have our own water supply. This water supply is not inexhaustible and natural replenishment is not a guarantee. The expense of pumping water is only a small part of the need to conserve. The ever-growing population of the installation puts an increased strain on our water supply. The prime contributors to excessive water consumption are lawn watering and evaporative cooling. Strict adherence to conservation measures are a must in our environment. Executive Order 13423 requires Federal agencies beginning in FY 2008 to reduce water consumption intensity, relative to a 2007 baseline, through life-cycle cost-effective measures, by 2 percent per year through FY2015, or 16 percent total by the end of FY 2015.
- c. Electricity: The cost of procuring electrical power continues to soar. Adherence to the guidelines of this Directive will offer immediate energy and dollar savings. For example, according to the Federal Energy Administration, raising the thermostat from 72 to 78 degrees Fahrenheit on a 100 degrees Fahrenheit day can save 30 percent on energy expended for air conditioning. A dirty air filter or coil can reduce the efficiency of a cooling system by 25 percent or more. The efficient use of electrical energy must become everyone's concern.
- d. Fuel Oil #2: A large number of heating systems on Caserma Ederle are supplied with high temperature hot water that is generated by a central heat plant. The reference stipulates that heating temperatures will be set at 65 to 68 degrees Fahrenheit in living/working areas. By adjusting temperatures accordingly we can reduce natural gas consumption significantly.
- e. Natural Gas Family housing units heating systems at Villaggio are supplied with natural gas. The reference stipulates that heating temperatures will be set at 65 to 68 degrees Fahrenheit in living/working areas. By adjusting temperatures accordingly we can reduce natural gas consumption significantly.

ENERGY CONSERVATION.

a. Lighting: Energy consumed for lighting shall be reduced by removing non-essential lamps, and by applying non-uniform lighting levels to existing lighting systems. Change to a lower wattage lamp whenever possible. Replace incandescent lamps with compact fluorescent lamps having a comparable number of lumens (see figure 1). For example, a nine watt compact fluorescent bulb will produce illumination equal to a 60 watt incandescent bulb with considerable energy savings. Remove unnecessary lamps in rooms where all lights operate on one switch. The simplest and most efficient way to reduce the amount of lighting is to remove some of the lamps. This is particularly true where you have rows of ceiling lights. When removing two fluorescent lamps in a four-foot fixture as a permanent lighting reduction, (as an example in a four lamp fixture) the ballast should also be disconnected. Ballasts consume a constant 3-4 watt load if left connected. This could add up if de-lamping several fixtures. Lights will be turned off if room is to be vacated for 15 minutes or more. After hours and exterior lighting shall be eliminated except where it is essential for safety, security or recreational purposes. All inefficient High Intensity Discharge (HID) exterior lighting, such as Mercury Vapor should be eliminated or replaced. Where a high degree of color rendering is not required, only High Pressure Sodium Fixtures should be installed for safety and security reasons. See Table 1. Contact the utilities division for assistance in determining proper lighting application and levels.

Table 1: Light Source Efficiencies

Light Source Type	Approximate Lumens Per Watt		
Incandescent	9-24		
Fluorescent	65-90		
Mercury Vapor	34-53		
Metal Halide	67-117		
High Pressure Sodium	55-126		
Low Pressure Sodium	73-129		
(Monochromatic light source)			

- b. Heating: Energy consumed for heating and cooling shall be reduced. During the heating season October 15- April 15 or as appropriate for the weather conditions, temperature control devices shall be set to maintain 20-22 degrees Celsius depending on the type of occupancy and activity in the space.
- c. Cooling: During the cooling season, increasing the thermostat setting from 20 to 25 degrees Celsius can reduce energy consumption by 30 percent for refrigerated air conditioning. Doors and windows must remain closed while refrigerated air conditioning is in operation. Keeping window coverings closed during sun exposed side of the building will help to reduce heat gain and cooling load to the building envelope. Unlike refrigerated air conditioning, which cools inside air, evaporative coolers cool the inside air stream by displacing heat from the outside air. Cooling depends on the warm, inside airflow being replaced. Therefore, in areas using sensible cooling (evaporative coolers), windows will have to be open slightly to increase the efficiency of these systems. Some buildings that are designed for evaporative cooling use a

return duct to exhaust the warm air being replaced by the evaporative cooler. In this case, make sure windows and doors are kept closed. Prudent use of air conditioning must be maintained so that the installation does not exceed its energy goal as established by the Department of Defense.

- d. Additional Air Conditioning Units: Requests for additional air conditioning units must be submitted to the Energy Manager and approved by the ECB prior to purchase and installation.
 - e. Threshold Heaters, Portable Heaters, and Portable Cooling Devices are prohibited.
- f. Exceptions: Exceptions to the policies prescribed in this enclosure may be necessary for protection and operation of certain specialized equipment such as computers or such areas as the clinic. Such exceptions may be granted by the ECB after consulting with appropriate technical personnel of the unit requesting the exception and the presentation of necessary supporting evidence.

g. Required Actions.

(1) Electricity.

- (a) Outdoor lighting which is not required for mission, safety or security purposes will be discontinued. This is being reviewed on a continuing basis, and any unnecessary lighting will be turned off or disconnected.
 - (b) Electrical converters (400 hertz) will not be operated when output is not being used.
- (c) General interior lighting levels will be limited to 50 foot-candles at workstations, 30 foot-candles in work areas, and 10 foot-candles in non-work areas. Contact the utilities division for assistance in determining adequate lighting levels.
- (d) General purpose office equipment, monitors, copiers, faxes, printing devices, fans, coffee makers, and all other appliances and electricity-consuming devices will be energy star compliant and will be turned off at the end of the workday or during the day when no longer needed for use. All new copiers must have a power saver switch on them that will automatically put them in the power saver mode.
- (e) Exception: The central processing unit (CPU) for computers, desktop units, and personal computers can be left on for IT purposes when the computer is configured and enabled for low energy saving features during periods of operator absence and the mode is activated after any 30 minutes of inactivity and the computer meets the ENERGY STAR compliance and consumes 20 watts or less of energy while in that mode.

(2) Heating.

(a) 70 degrees Fahrenheit is the maximum temperatures allowed during the heating season.

- (b) In those buildings which allow occupants to control the heating, temperatures will be reduced during periods of non-occupancy (overnight, weekends, and holidays) to 55 degrees Fahrenheit or lowest thermostat setting if the thermostat cannot be reduced to 55 degrees Fahrenheit. The amount of time it takes to warm buildings up is minimal compared to the energy saved.
- (c) Ventilation of buildings during heating periods will be limited to that necessary for health of occupants.
- (d) Heat will not be provided when the outdoor temperature exceeds 60 degrees Fahrenheit. For buildings not on the high temperature hot water distribution system, heaters will not be placed into winter operation until the outdoor temperature falls below 60 degrees Fahrenheit between 0600 and 2200 for three consecutive days.
- (e) Unused spaces will not be heated; close off registers or air ducts to spaces not being used. Contact the utilities division if a building is to be unoccupied for one week or longer (deployments, field exercises, etc.).
 - (f) Large doors in warehouses and shops will not be left open while areas are being heated.
 - (3) Cooling.
 - (a) 74 degrees Fahrenheit is the minimum temperature allowed during the cooling season.
- (b) In all cases, air conditioners and cooling systems will not be operated before 0900 or after 2200, except when an exception to this policy is requested in writing and approved by the ECB.
- (c) Air conditioners and evaporative coolers will not be turned on unless the temperature is higher than 80 degrees Fahrenheit outside for three consecutive days.
- (d) Unused spaces will not be cooled; close off registers of rooms not being used. Contact Facilities Maintenance Branch if a building is to be unoccupied for one week or longer (deployments, field exercises, etc.).
 - (e) Do not leave large doors open in warehouses and shops while cooling the area.
- (f) Shut off air conditioners one-half hour before the close of business. As with heating, the cool down time in the morning is minimal compared to energy savings.
 - (g) Use only the blower to purge warm air from buildings in the morning before turning on.
 - (4) Additional Conservation Measures.
 - (a) Keep windows and doors shut and close drapes and blinds at the end of the workday.

- (b) Check weather stripping around windows, doors, and window air coolers. Request to have it installed or replaced if necessary.
- (c) Do not put furniture or equipment in front of return air intake that will obstruct airflow to furnaces and air conditioning units in the building.
- (d) All areas requiring higher temperatures, such as paint shops, should schedule their operations to take maximum advantage of warm weather and highest daytime temperature during cold weather.
 - (e) Request that exterior door closers be adjusted to ensure doors close tightly.
- (f) Request through utility maintenance that air filters be cleaned or replaced if there is reduced airflow.
- (g) Do not use hot water if warm or cool water will do. Next to heating and cooling equipment, the water heater is the most expensive appliance to operate.
 - (h) Turn off lights in all facilities when not in use.
- (i) Deactivate lighting fixtures in place to achieve mandatory reduced lighting levels. Fixtures need not be removed, but must be tagged to prevent maintenance crews from reconnecting. Install phantom tubes on rapid-start fluorescent fixtures to reduce light densities. If the lamps are removed as a permanent light reduction on F32T8 (4-foot bi-pin lamps), then the ballast should also be disconnected by a qualified electrician.
- (j) Limit use of equipment and appliances to the minimum essential. Turn off/disconnect energy consuming appliances when not in use.
- (k) Use minimum wattage light bulbs consistent with safety and work requirements. When possible substitute fluorescent equivalent lumen output lamps to replace standard medium base incandescent lamps of a higher wattage.
- (l) Light is energy; use or reject solar heating as required. Open blinds and curtains during the heating months to allow the sun to assist in heating requirements. Similarly, close blinds and curtains during the summer months to prevent solar heat gain to air-conditioned space.
- (m) Use the energy saver switch on refrigerators. This switches off a device for a small heating element that reduces condensation around refrigerator and freezer doors and is typically not required in the desert environment. Similarly, the drying heat element on automatic dishwashers is typically not required in a low humidity environment.
- (n) After-hour classes held in Base sponsored buildings for private colleges in support of the Army will submit a list of buildings and rooms being used to the Energy Manager. Every effort will be made to use as few buildings as possible to limit energy usage.

3. WATER CONSERVATION.

a. Lawns.

- (1) The objective is to apply an adequate amount of water to ensure healthy lawns and plants. Run-off, over watering, and excessive evaporation must be avoided. With a common sense approach, water can be conserved and lawns kept green.
- (2) In mixed planting, the best solution is a combination of several light watering for the lawn with less frequent heavy watering for deep enrooted trees and shrubs, all properly trimmed. In no case is daily watering needed for established lawns.
- (3) On vigorous and well-fertilized lawns, watering may be withheld until the first wilting symptoms appear. Brown spots may develop in nitrogen deficient lawns before wilting occurs. Heavy watering is often misused as a corrective effort when actually fertilization is needed. For additional information or specific questions contact the Family Housing Office.

b. Trees.

- (1) All trees should be watered deep to prevent roots growing near the surface and ruining the lawn. The shallow roots make a tree susceptible to being blown over by high winds. Trees and shrubs that are improperly watered often become yellowish green, brown tipped, or partly defoliated. Frequent light irrigation can cause twig dieback of trees and shrubs growing in lawns.
- (2) Different methods may be employed for younger trees and shrubs, use a watering well consisting of a six-inch high berm about 24 inches from the tree trunk. This will hold the water around the base of the tree and allow it to soak into the root zone. As a general rule, apply about six gallons of water per foot of height. Apply the water slowly to allow it to soak in. Watering may be needed three or more times per week in hot weather and monthly or bi-weekly in winter. Watering mature trees should be accomplished every 30 days using approximately five gallons of water applied slowly near the base of the trunk to allow it to soak into the ground.

c. Watering Hours.

- (1) June through August: Up to four times weekly, not to exceed one hour per day, before 0800 or after 1800.
- (2) September through May: Up to two times weekly, not to exceed one hour per day, before 0800 or after 1800.
- (3) Watering During Heat of Day: Never water during the heat of the day as some of the water will evaporate and plants tend to wilt.
 - (4) Hand Watering and POV Washing: Permitted during watering hours only and should

not exceed 30 minutes.

d. Rules for Watering.

- (1) Washing of driveways and walkways prohibited.
- (2) Do not leave a sprinkler in one place long enough to cause run-off onto street or sidewalk
 - (3) Use self-closing nozzles on hoses.

e. Additional Conservation Measures.

- (1) Close water tap when not in use.
- (2) Do not run water at a rate exceeding immediate requirements.
- (3) Do not hold down the handle of automatic flushing valves on plumbing fixtures
- (4) Operate fountains only when actually drinking.
- (5) Shut off leaking fixtures, if possible, pending repairs
- (6) Take short showers instead of baths. Normally a bath will use 10 gallons more than a short shower.
 - (7) Turn off the faucet while shaving or brushing teeth.
 - (8) Accumulate a full load of clothes or dishes before washing them.
- (9) Keep a water bottle in the refrigerator rather than running the tap to cool drinking water each time.

Energy Waste/Abuse 24 hr Hotline M-F, 0800-1700, 634-8941 After hours and weekends 634-7336

Revision Number	Date	Section	Summary of Change	Signature
0	10 October 2008	All	Initial Development of the Policy	